

## AMENDMENTS TO THE CLAIMS

Claims 1-30 (Cancelled)

31.(Currently Amended) A diaper product ~~(2,6)~~ comprising:

a ~~disposal~~disposable diaper ~~(21)~~;

an auxiliary absorbent pad ~~(61)~~ attached inside said ~~disposal~~disposable diaper ~~(21)~~, for receiving excrement from a wearer;

a first IC tag ~~(51)~~ having a first IC chip and a first antenna for radio communication connected to said first IC chip, said first IC tag being attached to said ~~disposal~~disposable diaper; and

a second IC tag ~~(52)~~ having a second IC chip and a second antenna for radio communication connected to said second IC chip, said second IC tag being attached to said auxiliary absorbent pad,

wherein a serial number for discriminating said ~~disposal~~disposable diaper ~~(21)~~ from other ~~disposal~~disposable diapers is stored in said first IC chip and can be read out through said first antenna, and

wherein a serial number for discriminating said auxiliary absorbent pad ~~(61)~~ from other auxiliary absorbent pads is stored in said second IC chip and can be read out through said second antenna.

32. (Cancelled)

33. (Currently Amended) A supply information management system for managing information on supply of diaper products, comprising:

a writing device~~(711)~~ provided in a station~~(701 to 705)~~ where a predetermined process of at least one of manufacturing, inspecting, storing, shipping and selling on supply of a diaper product~~(1 to 4, 6)~~ is performed, said writing device being provided for writing to store process information on said predetermined process to an IC chip of an IC tag~~(5)~~ attached to said diaper product~~(1 to 4, 6)~~ through an antenna of said IC tag~~(5)~~ for radio communication;

a reading device~~(711)~~ for reading a process information together with a serial number stored in an IC chip;

a product database storage part~~(724)~~ for storing a product database~~(91)~~ which is a set of data elements each associating a serial number with process information; and

a product database updating part~~(723)~~ for specifying a data element in said product database~~(91)~~, which includes a serial number read out by said reading device~~(711)~~, and adding process information read out by said reading device~~(711)~~ to said data element.

34. (Currently Amended) The supply information management system~~(710)~~ according to claim 33, further comprising:

a confirming part~~(720)~~ for confirming whether process information read out by said reading device~~(711)~~ between a first process included in said predetermined process and a second process after said first process includes first process information written to said IC chip by said writing device~~(711)~~ in said first process; and

a transmitting part~~(721)~~ for transmitting a serial number and first process information which are read out by said reading device~~(711)~~ to said product database updating part~~(723)~~ in

a case where process information confirmed by said confirming part-~~(720)~~ includes said first process information.

35. (Currently Amended) The supply information management system-~~(710)~~ according to claim 33, further comprising:

a portable reading device-~~(717)~~ for reading a serial number and process information stored in an IC chip of an IC tag-~~(5)~~ attached to a diaper product-~~(1 to 4, 6)~~ in a noncontact manner and outputting said serial number and said process information.

36. (Currently Amended) The supply information management system-~~(710)~~ according to claim 35, wherein said serial number and said process information which are read out by said reading device-~~(711)~~ and/or said portable reading device-~~(717)~~ are transmitted to said product database updating part-~~(723)~~ through internet-~~(714)~~.

37. (Currently Amended) The supply information management system-~~(710)~~ according to claim 33, wherein said station includes at least one of a manufacturing station-~~(701)~~ for performing a process of manufacturing a diaper product-~~(1 to 4, 6)~~, an inspection station-~~(702)~~ for performing a process of inspecting a diaper product-~~(1 to 4, 6)~~, a storage station-~~(703)~~ for performing a process of storing or retrieving a diaper product-~~(1 to 4, 6)~~, a shipping station-~~(704)~~ for performing a process of shipping a diaper product-~~(1 to 4, 6)~~ and a sales station-~~(705)~~ for performing a process of selling a diaper product-~~(1 to 4, 6)~~.

38. (Currently Amended) The supply information management system-~~(710)~~ according to claim 37, wherein said station includes said manufacturing station-~~(701)~~, and

wherein said writing device-~~(711)~~ provided in said manufacturing station-~~(701)~~ writes at least one of a product model type indicating a kind of said diaper product-~~(1 to 4, 6)~~ and its manufacturing date and time to said IC chip as said process information.

39. (Currently Amended) The supply information management system-~~(710)~~ according to claim 37, wherein said station includes said inspection station-~~(702)~~, and

wherein said writing device-~~(711)~~ provided in said inspection station-~~(702)~~ writes at least one of inspecting date and time of a said diaper product-~~(1 to 4, 6)~~, an inspector name and an inspecting device to said IC chip as said process information.

40. (Currently Amended) The supply information management system-~~(710)~~ according to claim 37, wherein said station includes said storage station-~~(703)~~, and

wherein said writing device-~~(711)~~ provided in said storage station-~~(703)~~ writes at least one of storing date and time and retrieving date and time of a said diaper product-~~(1 to 4, 6)~~ to said IC chip as said process information.

41. (Currently Amended) The supply information management system-~~(710)~~ according to claim 37, wherein said station includes said shipping station-~~(704)~~, and

wherein said writing device-~~(711)~~ provided in said shipping station-~~(704)~~ writes at least one of shipping date and time and a destination of said diaper product-~~(1 to 4, 6)~~ to said IC chip as said process information.

42. (Currently Amended) The supply information management system-~~(710)~~ according to claim 37, wherein said station includes said sales station-~~(705)~~, and

wherein said writing device-~~(711)~~ provided in said sales station-~~(705)~~ writes selling date and time of said diaper product-~~(1 to 4, 6)~~ to said IC chip as said process information.

43. (Currently Amended) A supply information management system-~~(710a)~~ for managing information on supply of diaper products, comprising:

a reading device-~~(711a)~~ for reading a serial number stored in an IC chip of an IC tag-~~(5)~~ attached to a diaper product-~~(1 to 4, 6)~~ through an antenna of said IC tag-~~(5)~~ for radio communication;

a product database storage part-~~(724)~~ for storing a product database-~~(91)~~ which is a set of data elements each associating a serial number of a diaper product-~~(1 to 4, 6)~~ with process information on a predetermined process of at least one of manufacturing, inspecting, storing, shipping and selling on supply of said diaper product-~~(1 to 4, 6)~~; and

a product database updating part-~~(723)~~ for specifying a data element in said product database-~~(91)~~, which includes a serial number read out by said reading device-~~(711a)~~, and adding process information on a process for a diaper product-~~(1 to 4, 6)~~ to said data element when said process is performed.

44. (Currently Amended) A usage information management system-~~(810)~~ for managing information on usage of diaper products, comprising:

a reading device~~(811)~~ for reading a product model type indicating a kind of a diaper product~~(2, 6)~~ and a serial number which are stored in advance in an IC chip of an IC tag~~(5)~~ attached to said diaper product~~(2, 6)~~ through an antenna of said IC tag~~(5)~~ for radio communication;

a stock database storage part~~(831)~~ for storing a stock database~~(92)~~ which is a set of data elements each associating a serial number of a diaper product~~(2, 6)~~ with a product model type and a state of usage of said diaper product~~(2, 6)~~;

a stock database updating part~~(832)~~ for specifying a data element in said stock~~database~~ ~~(92)~~, database, which includes a serial number read out by said reading device~~(811)~~, and updating a value of a data item in said data element which indicates a state of usage from a value of "unused" to that of "used" when said diaper product~~(2, 6)~~ is put on a wearer; and

a stock number obtaining part~~(833)~~ for specifying data elements in said stock~~database~~ ~~(92)~~, database, each of which includes one product model type out of a plurality of product model types and a data item indicating said state of usage which has a value of "unused", and obtaining the number of said data elements as a stock number for a diaper product corresponding to said product model type.

45. (Currently Amended) The usage information management system~~(810)~~ according to claim 44, further comprising:

an order condition storage part~~(834)~~ for storing a stock threshold value and the number of reordered products corresponding to each of said plurality of product model types; and

a reorder part~~(835)~~ for transmitting a product model type and order information indicating the number of reordered products for said product model type to a selling agency

through a communication network-~~(911)~~ when a stock number for a diaper product-~~(2, 6)~~ corresponding to said product model type, which is obtained by said stock number obtaining part ~~(833)~~, falls short of a stock threshold value of said product model type.

46. (Cancelled)

47. (Currently Amended)     A usage information management system for managing information on usage of diaper products, comprising: ~~The usage information management system (810) according to claim 46, further comprising:~~

\_\_\_\_\_ a first reading device for reading a product model type indicating a kind of diaper product, which is stored in an IC chip of an IC tag attached to a diaper product through an antenna of said IC tag for radio communication;

\_\_\_\_\_ a second reading device for reading a wearer identification number for discriminating one wearer of a diaper product from other wearers;

\_\_\_\_\_ a wearer database storage part for storing a wearer database which is a set of data elements each associating a wearer identification number with an applicable model type which is a product model type of a diaper product to be put on a wearer corresponding to said wearer identification number;

\_\_\_\_\_ a model type check part for specifying a data element in said wearer database, which includes a wearer identification number read out by said second reading device, and checking an applicable model type in said data element with a product model type read out by said first reading device; and

a wearer database updating part~~(851)~~ for specifying a data element in said wearer database~~(93)~~, which includes a wearer identification number read out by said second reading device~~(811)~~, and updating a value of applicable model type in said data element to a product model type read out from a diaper product~~(2, 6)~~ by said first reading device~~(811)~~ when a change of applicable model type of a diaper product~~(2, 6)~~ to be put on a wearer is needed.

48. (Currently Amended)     A usage information management system for managing information on usage of diaper products, comprising: The usage information management system  
(810) according to claim 46, wherein

\_\_\_\_\_ a first reading device for reading a product model type indicating a kind of diaper product, which is stored in an IC chip of an IC tag attached to a diaper product through an antenna of said IC tag for radio communication;

\_\_\_\_\_ a second reading device for reading a wearer identification number for discriminating one wearer of a diaper product from other wearers;

\_\_\_\_\_ a wearer database storage part for storing a wearer database which is a set of data elements each associating a wearer identification number with an applicable model type which is a product model type of a diaper product to be put on a wearer corresponding to said wearer identification number; and

\_\_\_\_\_ a model type check part for specifying a data element in said wearer database, which includes a wearer identification number read out by said second reading device, and checking an applicable model type in said data element with a product model type read out by said first reading device,



wherein a data element of said wearer database-~~(93)~~ includes latest wearing date and time associated with a wearer identification number, and

when one diaper product-~~(2, 6)~~ is put on a wearer, said wearer database updating part ~~(851)~~ specifies a data element in said wearer database-~~(93)~~, which includes a wearer identification number read out by said second reading device-~~(811)~~, and updates latest wearing date and time in said data element.

49. (Currently Amended) The usage information management system-~~(810)~~ according to claim 48, further comprising a change-scheduled date and time output part-~~(853)~~ for outputting next change-scheduled date and time for each wearer on the basis of a wearer identification number, latest wearing date and time and a change interval included in a data element corresponding to said each wearer.

50. (Currently Amended) The usage information management system-~~(810)~~ according to claim 49, wherein a data element of said wearer database-~~(93)~~ includes a plurality of latest wearing dates and times and a plurality of change intervals corresponding to a plurality of product model types of diaper products-~~(2, 6)~~ associated with a wearer identification number, and

wherein said change-scheduled date and time output part-~~(853)~~ outputs a next change-scheduled date and time on the basis of latest wearing date and time and a change interval of a data element including a wearer identification number read out by said second reading device ~~(811)~~ and a product model type of a diaper product-~~(2, 6)~~ read out by said first reading device ~~(811)~~ when said diaper product-~~(2, 6)~~ is put on a wearer.

51. (Currently Amended)     A usage information management system for managing information on usage of diaper products, comprising: ~~The usage information management system (810) according to claim 46, further comprising:~~

      a first reading device for reading a product model type indicating a kind of diaper product, which is stored in an IC chip of an IC tag attached to a diaper product through an antenna of said IC tag for radio communication;

      a second reading device for reading a wearer identification number for discriminating one wearer of a diaper product from other wearers;

      a wearer database storage part for storing a wearer database which is a set of data elements each associating a wearer identification number with an applicable model type which is a product model type of a diaper product to be put on a wearer corresponding to said wearer identification number;

      a model type check part for specifying a data element in said wearer database, which includes a wearer identification number read out by said second reading device, and checking an applicable model type in said data element with a product model type read out by said first reading device;

      a wearing date and time database storage part ~~(861)~~ for storing a wearing date and time database ~~(94)~~ which is a set of data elements each associating a product model type of a diaper product ~~(2, 6)~~ and a wearer identification number with wearing date and time when said product model type of said diaper product ~~(2, 6)~~ is put on a wearer corresponding to said wearer identification number;

a wearing date and time database updating part ~~(862)~~ for adding a new data element to said wearing date and time database ~~(94)~~ when one diaper product ~~(2, 6)~~ is put on a wearer, said new data element including a product model type of said diaper product ~~(2, 6)~~, which is read out by said first reading device ~~(811)~~, a wearer identification number read out by said second reading device ~~(811)~~ and wearing date and time of said diaper product ~~(2, 6)~~; and

a usage frequency obtaining part ~~(863)~~ for specifying a plurality of data elements having the same product model type and wearer identification number in said wearing date and time database ~~(94)~~ and obtaining a usage frequency indicating the number of used diaper products in a predetermined period on the basis of wearing dates and times of said plurality of data elements.

52. (Currently Amended)     The usage information management system ~~(810)~~ according to claim 51, wherein a plurality of data elements in said wearing date and time database ~~(94)~~ include product model types corresponding to ~~disposal~~disposable diapers ~~(21)~~ and other plurality of data elements include product model types corresponding to auxiliary absorbent pads ~~(61)~~ attached inside said ~~disposal~~disposable diapers ~~(21)~~.

53. (Currently Amended)     A usage information management system for managing information on usage of diaper products, comprising: ~~The usage information management system (810) according to claim 46, further comprising:~~

\_\_\_\_\_ a first reading device for reading a product model type indicating a kind of diaper product, which is stored in an IC chip of an IC tag attached to a diaper product through an antenna of said IC tag for radio communication;

a second reading device for reading a wearer identification number for discriminating one wearer of a diaper product from other wearers;

a wearer database storage part for storing a wearer database which is a set of data elements each associating a wearer identification number with an applicable model type which is a product model type of a diaper product to be put on a wearer corresponding to said wearer identification number;

a model type check part for specifying a data element in said wearer database, which includes a wearer identification number read out by said second reading device, and checking an applicable model type in said data element with a product model type read out by said first reading device;

a price database storage part ~~(871)~~ for storing a price database ~~(95)~~ which is a set of data elements each associating a product model type of a diaper product ~~(2, 6)~~ with its price; and

a billing database storage part ~~(872)~~ for storing a billing database ~~(96)~~ which is a set of data elements each associating a wearer identification number with a billing amount for cost on usage of a diaper product ~~(2, 6)~~; and

a billing database updating part ~~(873)~~ for specifying a data element in said price database ~~(95)~~, which includes a product model type of a diaper product ~~(2, 6)~~, which is read out by said first reading device ~~(811)~~, to acquire a price of said diaper product ~~(2, 6)~~ and specifying a data element in said billing database ~~(96)~~, which includes a wearer identification number read out by said second reading device ~~(811)~~, and updating a billing amount of a data element including said wearer identification number to a sum obtained by adding said price of said diaper product ~~(2, 6)~~ to said billing amount when said diaper product ~~(2, 6)~~ is put on a wearer.

54. (Currently Amended) A usage information management system for managing information on usage of diaper products, comprising: The usage information management system (810) according to claim 46, further comprising:

\_\_\_\_\_ a first reading device for reading a product model type indicating a kind of diaper product, which is stored in an IC chip of an IC tag attached to a diaper product through an antenna of said IC tag for radio communication;

\_\_\_\_\_ a second reading device for reading a wearer identification number for discriminating one wearer of a diaper product from other wearers;

\_\_\_\_\_ a wearer database storage part for storing a wearer database which is a set of data elements each associating a wearer identification number with an applicable model type which is a product model type of a diaper product to be put on a wearer corresponding to said wearer identification number;

\_\_\_\_\_ a model type check part for specifying a data element in said wearer database, which includes a wearer identification number read out by said second reading device, and checking an applicable model type in said data element with a product model type read out by said first reading device;

a price database storage part ~~(871)~~ for storing a price database ~~(95)~~ which is a set of data elements each associating a product model type of a diaper product ~~(2, 6)~~ with its price; and

a billing database storage part ~~(872)~~ for storing a billing database ~~(96)~~ which is a set of data elements each associating a wearer identification number with a self-pay ratio and a billing amount for cost on use of a diaper product ~~(2, 6)~~; and

a billing database updating part ~~(873)~~ for specifying a data element in said price database ~~(95)~~, which includes a product model type of a diaper product ~~(2, 6)~~, which is read out by said

first reading device~~(811)~~, to acquire a price of said diaper product~~(2, 6)~~ and specifying a data element in said billing database~~(96)~~, which includes a wearer identification number read out by said second reading device~~(811)~~ and updating a billing amount of a data element including said wearer identification number to a sum obtained by adding a product of said price of said diaper product~~(2, 6)~~ and said self-pay ratio to said billing amount when said diaper product~~(2, 6)~~ is put on a wearer.

55. (Currently Amended) A diaper product management system~~(910)~~ for managing information on diaper products, comprising:

a supply information management system~~(710a)~~ managed on a supplier side, where diaper products~~(1 to 4, 6)~~ are manufactured and sold, for managing information on supply of diaper products~~(1 to 4, 6)~~; and

a usage information management system~~(810)~~ managed on a consumer side, where diaper products~~(2, 6)~~ are consumed and connected to said supply information management system~~(710a)~~ through a communication network~~(911)~~, for managing information on usage of diaper products~~(2, 6)~~,

wherein said supply information management system~~(710a)~~ comprises

(i) a supplier-side reading device~~(711a)~~ for reading a serial number stored in an IC chip of an IC tag~~(5)~~ attached to a diaper product~~(1 to 4, 6)~~ through an antenna of said IC tag~~(5)~~ for radio communication;

(ii) a product database storage part~~(724)~~ for storing a product database~~(91)~~ which is a set of data elements each associating a serial number of a diaper product~~(1 to 4, 6)~~ with process

information on a predetermined process of at least one of manufacturing, inspecting, storing, shipping and selling on supply of said diaper product-~~(1 to 4, 6)~~;

(iii) a product database updating part-~~(723)~~ for specifying a data element in said product database-~~(91)~~, which includes a serial number read out by said supplier-side reading device ~~(711a)~~, and adding process information on said process to said data element;

(iv) a product information obtaining part-~~(726)~~ for specifying a data element in said product database-~~(91)~~, which includes a serial number transmitted from said usage information management system-~~(810)~~ to acquire a value of a predetermined data item in said data element as product information; and

(v) a product information transmitting part-~~(727)~~ for transmitting product information acquired by said product information obtaining part-~~(726)~~ to said usage information management system-~~(810)~~ through said communication network-~~(911)~~, and

wherein said usage information management system-~~(810)~~ comprises

(i) a consumer-side reading device-~~(811)~~ for reading a serial number stored in an IC chip of an IC tag-~~(5)~~ attached to a diaper product-~~(2, 6)~~;

(ii) a serial number transmitting part-~~(821)~~ for transmitting a serial number read out by said consumer-side reading device-~~(811)~~ to said supply information management system-~~(710a)~~ through said communication network-~~(911)~~; and

(iii) a product information output part-~~(822)~~ for receiving and outputting product information transmitted by said product information transmitting part-~~(727)~~ of said supply information management system-~~(710a)~~.

56. (Currently Amended) The diaper product management system-~~(910a)~~ according to claim 55, wherein said usage information management system-~~(810a)~~ further comprises a product model type transmitting part-~~(823)~~ for transmitting a product model type indicating a kind of a diaper product-~~(2, 6)~~, which is stored in an IC chip of an IC tag-~~(5)~~ attached to said diaper product-~~(2, 6)~~ and read out by said consumer-side reading device-~~(811)~~, to said supply information management system-~~(710b)~~ when said diaper product-~~(2, 6)~~ is put on a wearer, and wherein said supply information management system-~~(710b)~~ further comprises

a stock database storage part-~~(728)~~ for storing a stock database-~~(97)~~ which is a set of data elements associating a plurality of product model types of diaper products-~~(2, 6)~~ with respective stock numbers of diaper products-~~(2, 6)~~ on said consumer side corresponding to said plurality of product model types; and

a stock database updating part-~~(729)~~ for specifying a data element in said stock database ~~(97)~~, which includes a product model type transmitted from said product model type transmitting part-~~(823)~~, and subtracting one from a stock number in said data element.